

*Gastroenterology*

## Differentiating Ulcerative Colitis from Crohn's via Gene Expression

### Brief Description of Technology

A diagnostic test to differentiate ulcerative colitis from Crohn's via increased Type 2 and Type 17 immune responses in rectal gene expression.

#### TECHNOLOGY ID

2016-0901

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### Technology Overview

Dr. Rosen has developed a diagnostic process that differentiates ulcerative colitis (UC) from Crohn's disease via increased IL5 and IL17A mRNA expression or measuring decreased IL13 gene expression. Using increased IL5 and IL17A mRNA expression, an ROC curve showed approximately 70% sensitivity and 75% specificity. Approximately 50% of pediatric IBD patients exhibit an isolated colitis phenotype. Many of these children exhibit overlapping or atypical features, which hinder rendering a specific diagnosis of Crohn's or UC. Determining an accurate diagnoses allows patients to receive disease specific treatment much sooner. Early diagnosis and subsequent appropriate treatment prevents further deterioration of the patient's condition and allows for positive outcomes.

### Applications

- Positive determination of Crohn's disease versus ulcerative colitis in pediatric patients
- Potential for validation on paraffin embedded biopsies, currently collected

### Advantages

Early differential diagnosis of Crohn's disease or ulcerative colitis in pediatric patients allows for early treatment and positive patient outcomes.

### Market Overview

Approximately 1.6M Americans have IBD, and as many as 70K new cases are diagnosed each year. Current tests are unable to differentiate between UC and Crohn's in 1 in 10 patients with IBD.

### Investigator Overview

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